1. Workshop on: New opportunities and challenges with DANCE
February 2-4, 2004, Santa Fe, NM

Program

Sunday, Feb 1

19:00 – 21:00	**Welcome Reception**	

Monday, Feb 2

Nuclear Astrophysics A (Chair: Uwe Greife)

8:30 – 8:45	**Paul Lisowski,**	*Welcome*
8:45 – 9:15	**John Ullmann,**	*Commissioning and near future plans for DANCE*
9:15 – 9:55	**Franz Käppeler,**	*Nucleosynthesis between Iron and the Actinides – Clues for modeling Red Giants and Supernovae*
9:55 – 10:35	**Michael Wiescher,**	*Neutron capture in light halo nuclei – is there a light r-process*
10:35 – 10:50	**Break**	
10:50 – 11:30	**Paul Koehler,**	*Improving Explosive Nucleosynthesis Rates for Reactions Involving Alpha Particles: The DANCE Connection*
11:30 – 12:10	**Roberto Gallino,**	*The build-up of the solar system s-process: from nucleosynthesis in AGB stars of different mass and metallicity through the Chemical Evolution of the Galaxy*
12:10 – 14:00	**Lunch**	

Nuclear Astrophysics B (Chair: Klaus Guber)

14:00 – 14:30	**Rene Reifarth,**	*Nuclear Astrophysics at DANCE*
14:30 – 15:00	**Ernst Zinner,**	*NanoSIMS isotopic analysis of small presolar dust grains: implications for stellar nucleosynthesis*
15:00 – 15:30	**Maria Lugaro,**	*Presolar SiC grains from AGB stars: constraints on s-process branchings*
15:30 – 16:00	**Falk Herwig,**	*The s-process in low and intermediate mass stars at solar and very low metallicity*
16:00 – 16:30	**Break**	
16:30 – 17:00	**Alexander Heger,**	*s and p process in massive stars*
17:00 – 17:20	**Marco Pignatari,**	*Effects of uncertainties of (a,n) rates of ^{13}C*

		and ^{22}Ne on s-process nuclei
17:20 – 17:40	**Michael Paul,**	*Cross Section of the ^{62}Ni(n,g)^{63}Ni Reaction at Stellar Temperatures : Activation Measurement with Accelerator Mass Spectrometry*
17:40 –~19:00	**Discussions & contributed talks**	

Tuesday, Feb 3

Neutron Capture Physics and Detectors (Chair: Eric Lynn)

9:00 – 9:30	**Frank Dietrich,**	*Use of the direct-semidirect model to estimate capture between resonances*
9:30 – 10:00	**Toshihiko Kawano,**	*Neutron capture process for astrophysics*
10:00 – 10:30	**Alberto Mengoni,**	*Neutron capture and exotic nuclei*
10:30 – 11:00	**Break**	

Fission Gamma Studies (Chair: Darleane Hoffman)

11:00 – 11:15	**David Vieira,**	*Introduction to fission (charge particle) – gamma coincidence measurements at DANCE*
11:15 – 11:45	**Jerry Wilhelmy,**	*Fission-Gamma studies at DANCE*
11:45 – 12:15	**Thierry Ethvignot,**	*Detection of fission fragments with solar cells for gamma-fission or fission veto measurements with DANCE*
12:15 – 14:00	**Lunch**	
14:00 – 14:30	**Demetrios Sarantites**	*Detection of Evaporation Residues and Fission Fragments with thin-plastic scintillators of the HERCULES variety*
14:30 – 15:00	**Yaron Danon,**	*Measurements using the Multiplicity Array at RPI*
15:00 – 15:20	**Lee Bernstein,**	*Measuring protons and other charged particles using Silicon detectors at DANCE*
15:20 – 15:40	**Undraa Agvaanluvsan**	*Resonances and nuclear average properties using DANCE*
15:20 – 15:40	**Break**	
16:00 – 17:00	**Discussions 1: Astrophysics at DANCE** (moderated by Rene Reifarth)	
	Discussions 2: Fission at DANCE (moderated by David Vieira)	
17:00 – 17:30	**Summary & end of formal workshop**	

Wednesday, Feb 4

Tour at DANCE